Paper Building Blocks
Primary Audience: Early Childhood, Elementary School
Adapted from babbledabbledo.com

Description: How strong is paper? In this activity, you will try to build a structure using paper folded into triangular blocks. After a structure has been built, test its strength!

Materials:
- Paper – thick cardstock is best
- Something to cut the paper into long strips:
  - A paper cutter
  - Or, a straight edge, X-Acto knife, and cutting mat
  - Or, scissors, a ruler, and a pencil to mark cutting lines with
- Scotch tape

Instructions:
1. First, you need to make your paper blocks. Do this with an adult’s help:
   a. First, make many small rectangles out of your paper. Each rectangle should be 1 inch wide by 3 inches long. These will be your blocks.

   ![Image](Images from babbledabbledo.com)

   a. Take each strip of paper you cut in step (a) and, using a ruler, draw a line across the rectangle in pencil at the 1” mark and 2” mark. Fold on each mark and bring the sides together to make a triangle. Use your tape to complete the triangle form. Repeat for all of your blocks.

   ![Image](Images from babbledabbledo.com)

   b. Now cut several planks out of your paper. Cut a few planks of each size:
      i. 1 inch wide by 3 inches long
      ii. 1 inch wide by 4 inches long
      iii. 1 inch wide by 6 inches long
2. **Now it is time to build!** Try making a row that alternates between right-side-up and upside-down triangles. Putting planks in between your rows of triangles will help keep the structure intact! What sort of structure can you build?

3. **Test your structure.** How strong is it? Can you balance cookies on top of the structure without it collapsing? How about a book?

**Extension:** Take some time to learn together about Shigeru Ban, a famous Japanese architect. Ban is very creative and has put his skills to work helping others. He built temporary housing units for disaster refugees from cardboard paper tubes! Watch his [TED Talk](http://www.ted.com/talks/shigeru_ban_designing_with_cardboard) about his work on paper tube buildings.

**Additional Resources:** Reach out the [COSI Department of Science Content](http://www.cosi.org) if you have any questions or comments.

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